CLAIMS

What is claimed is:

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1. An apparatus having an RF circuitry portion comprising:

an antenna creating an electromagnetic field; and

an active shield substantially canceling the effects of the electromagnetic field in a predetermined region.

2. The apparatus of claim 1, wherein said active shield is coupled to the RF circuitry portion of the device.

3. The apparatus of claim 2, further comprising:

an adjustment circuit located between said antenna and said RF circuitry portion.

4. The apparatus of claim 2, further comprising:

a coupler located between said RF circuitry portion and said active shield.

5. The apparatus of claim 3, further comprising:

a coupler located between said RF circuitry portion and said adjustment circuit

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6. The apparatus of claim 3, wherein said adjustment circuit receives a reduced antenna signal.

7. The apparatus of claim 6, wherein said reduced antenna signal is approximately ten percent of the antenna signal.

8. The apparatus of claim 3, wherein said adjustment circuit includes a phase shifter.

9. The apparatus of claim 3, wherein said adjustment circuit includes a variable gain amplifier.

10. The apparatus of claim 3, wherein said adjustment circuit includes an attenuator.

11. The apparatus of claim 3, further comprising:

a sensor located in proximity to said active shield.

12. The apparatus of claim 3, further comprising:

a feedback circuit for controlling the adjustment circuit.

13. The apparatus of claim 1, wherein said predetermined region is near an operator's earpiece.

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14. A communication apparatus having an RF circuitry portion comprising:

an antenna creating an electromagnetic field; and

a plurality of active shields for canceling the effects of the electromagnetic field in a predetermined region.

15. The communication apparatus of claim 14, further comprising a plurality of adjustment circuits located between the RF circuitry portion and said plurality of active shields.

16. The communication apparatus of claim 15, wherein each of said adjustment circuits include a phase shifter and a variable gain amplifier.

17. The communication apparatus of claim 15, further comprising:

a plurality of feedback circuits to control the active shields.

18. The communication apparatus of claim 15, wherein said number of active shields is approximately four.

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19. A communication apparatus comprising:

an antenna creating an electromagnetic field; and

a means for canceling the effects of the electromagnetic field in a predetermined region.

20. A method comprising:

generating an electromagnetic field from an antenna; and

canceling the effects of the electromagnetic field in a predetermined region using an active shield.

21. The method of claim 20, wherein the step of canceling further comprises:

coupling an RF circuitry portion to an active shield through an adjustment circuit.

22. The method of claim 20, wherein the step of canceling further comprises:

phase shifting and amplifying a signal from the antenna before the signal reaches the active shield.

23. The method of claim 22, wherein the step of canceling further comprises:

feeding back from a sensor located in proximity to said active shield a signal which is used to vary the phase shifting and amplifying.

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24. A method comprising:

generating an electromagnetic field from an antenna; and

canceling the effects of the electromagnetic field in a predetermined region using a plurality of active shields.

25. An apparatus comprising:

means for generating an electromagnetic field from an antenna; and

means for canceling the effects of the electromagnetic field in a predetermined region using an active shield.

26. The apparatus of claim 25, wherein the canceling means further comprises:

means for coupling an RF circuitry portion to an active shield through an adjustment circuit.

27. The apparatus of claim 25, wherein the canceling means further comprises:

means for phase shifting and amplifying a signal from the antenna before the signal reaches the active shield.

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28. The apparatus of claim 27, wherein the canceling means further comprises:

means for feeding back from a sensor located in proximity to said active shield a signal which is used to vary the phase shifting and amplifying.

29. An apparatus comprising:

means for generating an electromagnetic field from an antenna; and

means for canceling the effects of the electromagnetic field in a predetermined region using a plurality of active shields.